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January 1975

Test 1182: White Field Boss 2-150 Diesel 18-Speed

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NEBRASKA TRACTOR TEST 1182 – WHITE FIELD BOSS 2-150 DIESEL 18 SPEED

POWER TAKE-OFF PERFORMANCE

| Hp | Crank- shaft speed rpm | Fuel Consumption | | Hp-hr per gal | Temperature Degrees F | | | Barometer inches of Mercury |
|---|---------------------------------|------------------|--------------------|---------------------|-----------------------|--------------------|--------------------|-----------------------------------|
| | | Gal per hr | Lb per hp-hr | | Cooling medium | Air wet bulb | Air dry bulb | |
| MAXIMUM POWER AND FUEL CONSUMPTION | | | | | | | | |
| Rated Engine Speed—Two Hours (PTO Speed—1007 rpm) | | | | | | | | |
| 147.49 | 2200 | 10.199 | 0.479 | 14.46 | 199 | 71 | 76 | 28.890 |
| VARYING POWER AND FUEL CONSUMPTION—Two Hours | | | | | | | | |
| 131.06 | 2300 | 9.165 | 0.484 | 14.30 | 195 | 71 | 75 | |
| 0.00 | 2355 | 3.142 | | | 170 | 68 | 71 | |
| 66.37 | 2333 | 5.789 | 0.604 | 11.46 | 193 | 69 | 74 | |
| 146.13 | 2201 | 10.240 | 0.485 | 14.27 | 200 | 70 | 74 | |
| 33.47 | 2345 | 4.359 | 0.902 | 7.68 | 187 | 70 | 75 | |
| 98.79 | 2313 | 7.289 | 0.511 | 13.55 | 196 | 71 | 76 | |
| Av 79.30 | 2308 | 6.664 | 0.582 | 11.90 | 190 | 70 | 74 | 28.895 |

DRAWBAR PERFORMANCE

| Hp | Draw- bar pull lbs | Speed miles per hr | Crank- shaft speed rpm | Slip of drivers % | Fuel Consumption | | | Temp | Degrees F | | Barometer |
|---|-----------------------------|-----------------------------|---------------------------------|-------------------------|------------------|--------------------|---------------------|---------------------|--------------------|--------------------|----------------------|
| | | | | | Gal per hr | Lb per hp-hr | Hp-hr per gal | Cool- ing med | Air wet bulb | Air dry bulb | inches of Mercury |
| VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITHOUT BALLAST | | | | | | | | | | | |
| Maximum Available Power—Two Hours—9th Gear (4 UD) | | | | | | | | | | | |
| 121.35 | 9865 | 4.61 | 2200 | 6.12 | 10.057 | 0.574 | 12.07 | 203 | 73 | 81 | 29.030 |
| 75% of Pull at Maximum Power—Ten Hours—9th Gear (4 UD) | | | | | | | | | | | |
| 99.49 | 7643 | 4.88 | 2286 | 4.45 | 8.197 | 0.570 | 12.14 | 197 | 77 | 90 | 29.058 |
| 50% of Pull at Maximum Power—Two Hours—9th Gear (4 UD) | | | | | | | | | | | |
| 68.11 | 5092 | 5.02 | 2319 | 3.14 | 6.410 | 0.652 | 10.63 | 195 | 67 | 68 | 29.035 |
| 50% of Pull at Reduced Engine Speed—Two Hours—11th Gear (4 DD) | | | | | | | | | | | |
| 67.68 | 5066 | 5.01 | 1918 | 2.99 | 5.525 | 0.565 | 12.25 | 194 | 70 | 73 | 29.030 |
| MAXIMUM POWER WITHOUT BALLAST | | | | | | | | | | | |
| 99.49 | 15059 | 2.48 | 2285 | 14.68 | 4th Gear (2-UD) | | | 198 | 69 | 75 | 29.030 |
| 122.54 | 11367 | 4.04 | 2201 | 7.49 | 8th Gear (3-DD) | | | 202 | 72 | 76 | 29.040 |
| 121.92 | 10174 | 4.60 | 2200 | 6.34 | 9th Gear (4-UD) | | | 200 | 72 | 75 | 29.040 |
| 127.49 | 8494 | 5.63 | 2200 | 4.93 | 11th Gear (4-DD) | | | 201 | 72 | 77 | 29.040 |
| 123.55 | 6781 | 6.83 | 2199 | 3.80 | 13th Gear (4-OD) | | | 202 | 72 | 78 | 29.030 |
| 121.36 | 4706 | 9.67 | 2201 | 2.47 | 15th Gear (5-OD) | | | 201 | 72 | 78 | 29.030 |
| VARYING DRAWBAR PULL AND TRAVEL SPEED WITHOUT BALLAST— 9th Gear (4 UD) | | | | | | | | | | | |
| Pounds Pull | | | | 10174 | 10765 | 11211 | 11512 | 11639 | 11333 | | |
| Horsepower | | | | 124.92 | 117.68 | 109.52 | 97.39 | 84.06 | 68.35 | | |
| Crankshaft Speed rpm | | | | 2200 | 1970 | 1770 | 1540 | 1317 | 1093 | | |
| Miles Per Hour | | | | 4.60 | 4.10 | 3.66 | 3.17 | 2.71 | 2.26 | | |
| Slip of Drivers % | | | | 6.34 | 6.77 | 7.35 | 7.91 | 8.05 | 7.77 | | |

TRACTOR SOUND LEVEL (with cab)

| | dB(A) |
|---|--------------|
| Maximum Available Power 2 Hours | 91.0 |
| 75% of Pull at Max. Power 10 Hours | 90.0 |
| 50% of Pull at Max. Power 2 Hours | 90.5 |
| 50% of Pull at Reduced Engine Speed 2 Hours | 90.5 |
| Bystander 18th Gear (6-OD) | 89.0 |

TIRES, BALLAST AND WEIGHT

| | | Tested Without Ballast |
|---|-----------------------|-------------------------------|
| Rear Tires | —No., size, ply & psi | Four 18.4-38; 8; 14 |
| Ballast | —Liquid | None |
| | Cast iron | None |
| Front Tires | —No., size, ply & psi | Two 11.00-16; 8; 32 |
| Ballast | —Liquid | None |
| | Cast iron | None |
| Height of drawbar | | 20 inches |
| Static weight with operator—rear | | 12630 lb |
| | front | 4310 lb |
| | total | 16940 lb |

Department of Agricultural Engineering

Dates of Test: June 16 to June 30, 1975

Manufacturer: WHITE FARM EQUIPMENT
COMPANY, 2625 Butterfield Road, Oakbrook,
Illinois 60521

FUEL, OIL AND TIME Fuel No 2 Diesel
Cetane No 51.7 (rating taken from oil company's
typical inspection data) Specific gravity con-
verted to 60°/60° 0.8315 Weight per gallon
6.923 lb Oil SAE 30 API service classification
SB/SE-CA/CD To motor 7.287 gal Drained
from motor 5.779 gal Transmission and final
drive lubricant SAE 80-90 Total time engine
was operated 50.5 hours.

ENGINE Make White Farm Equipment
Diesel Type six cylinder vertical Serial No
45204165 Crankshaft lengthwise Rated rpm
2200 Bore and stroke 4.75" x 5.5" Compression
ratio 15.3 to 1 Displacement 585 cu in Crank-
ing system 12 volt Lubrication pressure Air
cleaner two stage dry paper elements with aspir-
ated pre-cleaner Oil filter replaceable pleated
paper element Oil cooler engine coolant heat
exchanger for crankcase oil, radiator for hydrau-
lic oil Fuel filter replaceable paper cartridge
Muffler vertical Cooling medium temperature
control thermostat.

CHASSIS Type standard with duals Serial
No 2596593410 Tread width rear 61" to 128"
front 61" to 85" Wheel base 111.15" Center of
gravity (without operator or ballast, with mini-
mum tread, with fuel tank filled and tractor
serviced for operation) Horizontal distance for-
ward from center-line of rear wheels 27.8" Ver-
tical distance above roadway 38.7" Horizontal
distance from center of rear wheel tread 0" to
the right/left Hydraulic control system direct
engine drive Transmission selective gear fixed-
ratio with partial (3) range operator controlled
power shift Advertised speeds mph first 1.5 sec-
ond 1.8 third 2.2 fourth 2.8 fifth 3.4 sixth 3.8
seventh 4.1 eighth 4.5 ninth 5.0 tenth 5.4 elev-
enth 6.0 twelfth 7.0 thirteenth 7.2 fourteenth 8.4
fifteenth 10.1 sixteenth 12.3 seventeenth 14.8
eighteenth 17.7 reverse 1.9, 2.2, 2.7, 4.5, 5.5, 6.6
Clutch dry disc operated by foot pedal Brakes
triple disc hydraulically power actuated by two
foot pedals which can be locked together Steer-
ing hydrostatic Turning radius (on concrete
surface with brake applied) right 146" left 146"
(on concrete surface without brake) right 176.5"
left 176.5" Turning space diameter (on concrete
surface with brake applied) right 304" left 304"
(on concrete surface without brake) right 365"
left 365" Power take-off 542, 1007 and 2200 rpm
at 2200 engine rpm.

REPAIRS AND ADJUSTMENTS: Oil seal
on left rear axle leaked and was replaced. Num-
ber 6 piston seized and scored cylinder wall. 10
hour test was rerun after replacement of piston
and rear cylinder block.

REMARKS: All test results were determined
from observed data obtained in accordance with
SAE and ASAE test code or official Nebraska test
procedure.

Six gears were selected within the limits of
15% slip and 10 mph.

Fuel temperature at injection pump return
was 149 degrees F.

We, the undersigned, certify that this is a true
and correct report of official Tractor Test 1182.

LOUIS I. LEVITICUS

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman

W. E. SPLINTER

D. E. LANE

Board of Tractor Test Engineers

The Agricultural Experiment Station
Institute of Agriculture and Natural Resources
University of Nebraska—Lincoln
H. W. Ottoson, Director